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A DESCRIPTIVE STUDY OF THE LITHUANIAN VERBAL SYSTEM

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The journal Tlalocan has resumed publication under the editorship of Ignacio Bernal and Fernando Horcasitas. The journal is devoted to the publication of texts in the aboriginal languages of Mexico, and contains likewise notes and reviews on Mexican indigenous languages and cultures. The subscription price is $6.00 per volume, each volume containing four issues published at irregular intervals. Correspondence and subscriptions should be addressed to La Casa de Tlaloc, Tres Picos No. 65, Mexico 5, D. F.

A new journal entitled the International Journal of Slavic Linguistics and Poetics is being edited by Roman Jakobson, C. H. van Schooneveld, Chr. S. Stang, and Francis Whitfield. The issues, each to contain about 160 to 200 pages, will appear irregularly, and are priced at $4.00 each. Correspondence and subscriptions should be addressed to Mouton and Co., The Hague, Holland.

A DESCRIPTIVE STUDY OF THE LITHUANIAN VERBAL SYSTEM

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1.000 The purpose of this paper is to present a synchronic description of the Lithuanian verbal system.[1] Up to the present all descriptions have been based on the traditional division into infinitive and present stems.[2] These systems are quite satisfactory from the point of view of historical linguistics. It can be imagined, however, that a great simplification in the lexicon would be possible, if a system were to be devised whereby all the alternate verbal stems could be predicted from a single verbal stem.

1.100 Roman Jakobson has shown that in Russian it is possible to find for most verbs a stem from which the stem alternant or alternants can be predicted.[3] All previous descriptions of the Slavic verb had been based on either the present or the infinitive stem. A. Leskien, for example, uses the present stem as the basis for the principal classification and the infinitive stem for the subcategories.[4] In Jakobson's description of the Russian verb a single stem is chosen as basic, whether it be the present or the infinitive and rules are devised for the prediction of the alternate stem. In some cases this stem is phonemically constant, while in others it is a morphophonemic creation. The stem ⟨d'elaj⟩ 'to do' occurs in the 1st sg. /d'élaju/ 'I do.' On the other hand the stem ⟨smotre⟩ 'to look at' is actualized either as /smatr'é/ or /smótr'i/ depending upon the position of the stress. Thus for stems a morphophonemic notation is used.

1.200 Following Jakobson's description of the Russian verb, the same principles have been applied to other Slavic languages. Morris Halle made a study of the Old Church Slavonic verb, and Herbert Rubenstein and Jindřich Kučera published studies of the Czech verb.[5] Horace Lunt and Alexander Schenker made studies of the Macedonian and Polish verbal systems respectively.[6]

1.300 Several principles which Jakobson uses are suitable for a description of the Baltic as well as the Slavic verb. One principle is that of the loss or mutation of the stem-final phoneme

depending upon the initial phoneme of the desinence. For example, stems ending in vowels lose their final vowel when a vocalic desinence is added.[3] Thus in Russian the 3d pl. pres. of the stem {govor'i} 'to talk' is /gavar'at/ (with the addition of the desinence {-at}). Another sample of the loss of the stem-final phoneme (in this case /j/) is furnished by the stem Russ. {d'elaj} 'to do,' the masculine sg. preterit of which is /d'élal/. That we can use these principles in Baltic also can be seen from paragraphs 7.200-7.213 and 7.300.

1.400 The purpose of this paper is to give a description of the Lithuanian verbal system. In the description we shall choose for each verb a single stem from which the stem alternants can be predicted by means of morphophonemic and morphemic rules. This stem will sometimes correspond to the traditional infinitive stem, sometimes to the traditional present stem and sometimes it will be a non-occurring entity phonemically (but not morphophonemically).

1.500 The following phonemic structure is assumed for Lithuanian.

1.510 The consonants are:

		labial	dental	(alveo-palatal) retracted	velar	glottal
stops	voiceless	p	t		k	
	voiced	b	d		g	
	voiceless	f	s	š	x[8]	h[8]
continuants	voiced	v	z	ž		
	nasal	m	n			
affricates	voiced		d͡	ǯ		
	voiceless		c	č		

apical trill: r palatal glide: j
lateral: l

For every unpalatalized phoneme in the preceding inventory there is a phoneme similar in every respect except that it is palatalized, i.e. /p/ contrasts with /p͡/, /s/ contrasts with /s͡/, etc. (Naturally we do not consider the phoneme /j/ in this group.)

1.520 The vocalic phonemes are:

i, i:	u, u:
ė:	o, o:
e, e:	a, a:

A possible phonemic analysis would show only the simple vowel, plus the phonemic feature of length. The vowel /ė:/ is phonetically long, but no short counterpart exists.

1.530 In any word in Lithuanian there is only one phonemic stress. The short vowels are either stressed or unstressed. Dipthongs and long vowels may receive the stress on either the first or second element. Thus a vowel /i:/ may be stressed either on the first element /í:/ or the second /ĩ:/. Traditionally these are known as the acute and circumflex intonations, the acute being a falling pitch and the circumflex a rising pitch. The high pitch, however, always accompanies the stress so we can analyze the stress as distinctive and the pitch as automatic. We shall retain the traditional terminology, calling vowels with the stress on the first element 'acuted' and those with the stress on the second element 'circumflexed.' We shall mark vowels (and diphthongs) with the traditional signs, i.e. ´ for the acute and ~ for the circumflex. Departing from tradition the sign ˊ will be used for short stressed vowels. The sign ` is traditional to mark the stress on the short vowel.

1.540 Comments on the distribution of phonemes in Lithuanian are contained in the following paragraphs.

1.541 Only palatalized consonants and /j/ are found before front vowels, i.e. /i,i:, ė:, e, e:/ but palatalized and unpalatalized consonants contrast before vack vowels.

1.542 The consonants /m,n,r,l/ function as the second element of a diphthong and are capable of receiving the stress just as /u,i/. Thus there is no structural difference between the syllables /án/ and /áu/ or /eĩ/ and /eñ/ as far as the pattern of stress is concerned.

1.543 The vowels /e/ and /a/ only contrast in initial position in standard Lithuanian. Elsewhere the distinction is neutralized in favor of /a/ after unpalatalized consonants and in favor of /e/ after palatalized consonants and /j/.

1.544 Two consonantal phonemes in sequence must be both pal-

atalized or both unpalatalized.
1.545 Two consonants, one of which is phonemically voiced the other unvoiced can not stand in sequential position. Both must be either voiced or unvoiçed. For example, the groups /bd/ and /pt/ are possible, but the groups */bt/ and */pd/ are impossible.
1.546 On the other hand the rules of 1.545 do not hold for the voiced consonants which lack an unvoiced counterpart. For example, the combination /pl/ is possible.
1.547 Gemination of consonants is not found in standard Lithuanian.
1.548 Dental continuants do not cluster with alveo-palatal continuants or affricates.
1.549 Dental stops do not occur directly before dental or alveo-palatal continuants or affricates.
1.550 The combination, dental or alveo-palatal continuant plus velar stop plus any stop or /s/, /ŝ/ does not occur.
1.551 The phonemes /l,n,m,r/ are never stressed if they function as consonants, i.e. act as the point of maximum closure between two syllables.
1.552 The vowels /i:, u:, a:, e:/ do not occur before /l,m,n, r/ plus consonant, e.g. the combination */i:lt/ is impossible.
2.000 Definitions. The stem is the lexical item or morpheme to which the paradigmatic morphemes (desinences) are added. In general, stem types are named according to the final phoneme, i.e. /j/-stems are those ending in /j/, consonantal stems are those ending in a consonant, etc. It is convenient to establish certain subdivisions among vocalic stems with more than one syllable. Dissyllabic and polysyllabic stems, the final vowel of which is /i/, /i:/ or /o:/ will be termed /i/-stems, /i:/-stems and /o:/-stems respectively. Monosyllabic stems ending in these vowels are not included. The term secondary stem is used to denote that morpheme alternant which is required for certain classes of desinences (see para. 7.200).
2.100 Personal desinences are those which denote the person and number of the subject of the verb. Consonantal desinences are those beginning with consonants and vocalic desinences are those beginning with vowels.
2.200 The base form is that group of morphemes (generally the 3d person) consisting of lexical item plus desinence from which all of the dual and plural forms can be predicted (see para. 5.100).

2.300 The stem vowel is the vowel of the initial syllable of the stem. The stem final vowel is the vowel of the final syllable of the stem.

2.400 In most cases morphological changes which take place in the stem for the addition of type A endings (para. 6.110) take place also for type C and C' endings (para. 6.130). Therefore I shall use the term AC endings to denote the group A, C and C' endings.

2.500 The phrase stem-final depalatalization refers to the loss of palatalization before desinences beginning with non-front vowels. Obviously there can be no loss of palatalization before front vowels, because of the distribution of the phonemes (see para. 1.541).

3.000 Transcription. The transcription for the stems will be morphophonemic and I will create stems which do not occur phonemically (see para. 1.100). With a morphophonemic transcription a single form can be created from which the entire verbal paradigm can be predicted. Thus I shall create such forms as {klí:dst} 'to err' which is phonemically impossible in modern Lithuanian because a phonemically voiced consonant can never immediately precede a phonemically unvoiced consonant (see para. 4.200) and the cluster */tst/ would also be impossible (see para. 4.330).

3.100 Parentheses around a stress (́) will indicate that the stress does not shift according to our rules of stem alternation. For example, the stress in the stem {mẽ(́)rdi} 'to stink' does not shift to the /ė:/ in the secondary stem {mérdė:} as one should expect according to para. 7.230.

3.110 Parentheses will be used around the reflexive endings which do not follow the rules of 5.200 and 5.210. Thus the 1st sg. type A desinence is listed as {-u (os)}, the phonemes in parentheses constituting a morpheme alternant of the reflexive morpheme {-s}. Slashed parentheses, {--} denote morphophonemic transcription.

3.200 Palatalization of consonants is marked by ͡ over the consonant. Before front vowels palatalization is automatic, so in the morphophonemic transcription this will not be marked ordinarily when a front vowel follows (see para. 1.541). It will be marked even in the morphophonemic transcription, however, if the stem palatalization is retained instead of lost according to stem alternation rule 7.211 q.v.

3.210 In the phonemic transcription palatalization will be marked even where it is automatic. This is done for the sake of consistency. We shall mark voice and lack of voice (e.g. /p/ or /b/) even where this is determined automatically (see para. 4.200 and 1.545), so it seems consistent to mark palatalization. Thus in /ŝi/ the palatalization will be marked, just as in the cluster /bd/ the voicing of the bilabial stop is marked, although in a certain sense it is unnecessary, i.e. a*[pd] could not exist and would have to be rendered phonetically as [bd] or [pt]. Likewise phonetic *[si] could not exist according to para. 1.541.

3.300 The sign - will denote that the following morpheme is bound.

3.400 Sometimes two stresses will be marked on a stem although phonemically this is impossible (see para. 1.530). One of these stresses will be suppressed according to our morphemic rules (see para. 7.110).

4.000 Morphophonemic changes.

4.100 The palatalization or lack thereof in any consonantal phoneme will determine the presence or absence of palatalization in an immediately preceding consonant (see para. 1.544). In other words, the assimilation is regressive. For example, the palatalization of the 1st sg. future desinence, {-ŝu} is transferred to the final consonant of the stem in the root {kep} 'to bake.' The resultant form is then /képŝu/ 'I shall bake.' (See para. 6.220 for future desinences.)

4.200 The phonemic voicing or lack thereof in a consonantal phoneme will determine the presence or absence of voice in the preceding consonant (see para. 1.545). For example, when the 3d person conditional desinence {-tu:} desinence is added to the stem {dirb} 'to work' we have the form /dirptu:/ 'he would work.' The assimilation is regressive, similar to that of palatalization.

4.300 Certain consonant clusters are not permissible in Lithuanian. The simplifications which take place are listed in the following paragraphs.

4.310 Dental stops (i.e. /t/, /t̂/, /d/, /d̂/) occurring before other dental stops are replaced by sibilants (i.e. /s/, /ŝ/, /z/; /ẑ/ is theoretically possible, but actually does not occur (see para. 1.547). For example, when the morpheme {dav} for the imperfect (see para. 6.260) is added to the stem {met} 'to

throw', the resultant form is /m̂ézdav/.

4.320 Dental continuants and stops are replaced by /s̆/ before the consonant /c̆/ (see para. 1.548 and 1.549). For example, the stem {sé:d} 'to sit down' plus the 1st sg. conditional desinence {-c̆eu} (para. 6.240) gives the result /s̆é:s̆c̆eu/ 'I would sit down.'

4.330 Dental stops are lost before dental and alveo-palatal continuants (i.e. /s,š,s̆, s̆, z, ž, ẑ, ẑ̆/, see para. 1.549). For example, when the 1st sg. future desinence (para. 6.220) is added to the stem {ved} 'to lead,' the resultant form is /v̂ésu/ 'I shall lead.'

4.340 In a group of two velar stops the first one will always be dropped (para. 1.547). For example, the desinence {-k} (para. 6.230) is retained, but the preceding velar is lost in the form /b̂é:k/, the imperative of the stem {bé:g} 'to run.'

4.350 The continuants /s, s̆, z, ẑ/ occurring before the other dental continuants are dropped (see para. 1.549). For example, the 1st sg. future desinence {-ŝu}, when added to the stem {les̆} 'to peck' (of birds) gives the form /l̂ésu/ 'I shall peck.'

4.360 A dental continuant occurring after an alveo-palatal (i.e. /š, s̆, ž, ẑ̆/) will be lost, but the features of palatality (or lack thereof) and voicing (or lack thereof) will be transferred to the preceding alveo-palatal (see para. 1.549). For example, when the 1st sg. future desinence {-ŝu} (para. 6.220) is added to the stem {véž} 'to carry (by vehicle), 'the resultant form is /v̂éšu/. Another example is the morphophonemic transcription of the stem {du:ž̃st} 'to break,' which is phonemically /du:š̃t/ (see para. 7.340).

4.370 An /n/ directly preceding a stem final palatalized dental consonant will be lost if the dental undergoes any of the morphophonemic changes of para. 4.310, 4.320 or 4.330. The vowel directly preceding the /n/ will then be lengthened. For example, the stem {ken̂t̂} 'to suffer' has the infinitive /k̂e:s̆t̂i/ (cf. para. 6.300) and the future (1) /k̂e:s̆u/, (2) /k̂e:s̆i/, (3) /k̂e:s/ (cf. para. 6.220).

4.400 The groups of phonemes /sk, šk, s̆k̂, s̆k̂, zg, ẑĝ/ are always metathesized when they occur before a stop consonant, /s/ or /ŝ/ (see para. 1.550). For example, the stem {réišk̂} 'to signify' has the infinitive (see para. 6.300) /r̂éik̂šti/. Before the consonants /s/ or /ŝ/ there may be simplifications according to para. 4.350 and 4.360. For example, when the future

desinences are added to the stem {réišk}, the conjugation is (1) /réikšu/, (2) /réikši/, (3) /reikš/ (see para. 6.220).

4.500 The phonemes /n, l, m, r/ never receive the stress when they function as consonants (see para. 1.551). For example, the stem {gul} 'to lie down' has the infinitive /gulti/ in which the /l/ is stressed. But the phonemic realization of this stem before unstressed vocalic desinences must be /gúlˆ/, i.e. the only type of stress phonemically possible (see para. 1.530). Thus the 3d preterit of this stem is /gúlė:/ (see para. 6.120).

4.600 Tautosyllabic diphthongs with the phonemes /i:, u:, a:, e:, uo/ plus /l,m,n,r/ are not permitted (see para. 1.552). If a consonant is added to a stem combination of long vowel plus sonant the following shortenings will take place:

4.610 The vowels /i:, u:, a:/ will lose their length. Examples are the stems {bi:r} 'to drop,' {sa:l} 'to become sweet,' {spu:r} 'to fray,' which, when the infinitive desinences are added become respectively /birti/, /sálti/ and /spúrti/.

4.620 The diphthong /uo/ is replaced by /u/. In the resulting diphthong, /u/ will always take the stress. An example is {puol} 'to fall,' which, when the infinitive desinence is added, becomes /púlti/ (see para. 6.300).

4.700 As we have seen (para. 1.543), the phonemes /e/ and /a/ only contrast in initial position. If a stem ends in /j/ or a palatalized consonant, the initial /a/ of any vocalic desinence will be replaced by /e/. Thus when the desinence {-a} (3d person, see para. 6.110) is added to the stem {láuk} 'to wait for,' the resultant form is /láuke/ 'he waits for.'

5.000 The plural and the reflexive desinences.

5.100 In the verb there is no morphemic marker to distinguish number in the third person, the same form being used whether the subject is singular, dual or plural. The 1st and 2d plural and dual forms of the verb can all be predicted from a form which we shall term the base form. In the case of the future tense (para. 6.220) and the imperative mood (para. 6.230) the base form is identical with the 2d person sg. non-reflexive form of the verb. For all other tenses and moods the base form is identical with the 3d person.

5.110 The non-reflexive and reflexive plural and dual desinences are listed as follows:

	non-reflexive	reflexive
1st pl.	-me	-mè:s
1st dual	-va	-vo:s
2d pl.	-te	-tè:s
2d dual	-ta	-tos

5.120 A sample of a present conjugation which can be predicted from the 3d person is furnished by the stem {šó́:k} 'to jump' which has the 3d person form /šó́:ka/ (see para. 6.110). The plural and dual forms are: (1st pl.) /šó́:kame/, (1st dual) /šó́:kava/, (2d pl.) /šó́:kate/, (2d dual) /šó́:kata/.

5.130 A sample of the future (for which the 2d sg. is identical with the base form) is furnished by the stem {táiki:} 'to aim,' the 2d sg. of which is /táiki:si/ (see para. 6.220). The dual and plural forms are (1st pl.) /táiki:sime/, (1st dual) /táikisiva/, (2d pl.) /táiki:site/, (2d dual) /táiki:sita/.

5.200 The reflexive desinence is {-is} (except where indicated otherwise, see para. 5.110 and 6.110) and is added directly to the final phoneme of the desinence. For example, the stem {tep} 'to smear, to grease' has the 3d person future /téps/ (see para. 6.220) for which the corresponding reflexive is /tépsis/.

5.210 When the final phoneme of the desinence is a vowel, the initial phoneme of the reflexive desinence is dropped. For example, the 3d person present of the stem {muš} 'to beat,' is /múša/. The corresponding reflexive is /múšas/, 'he fights.'

5.220 Sometimes a final /i/ is added to the reflexive desinence (e.g. the form /múšas/ given above has an alternant /múšasi/), but the presence or absence of this final /i/ is a matter of style of speech.

6.000 The personal and non-personal desinences. The personal desinences of each type will be listed after numbers in parentheses: (1) = 1st person singular, (2) = 2d person singular, (3) = 3d person (uncharacterized as to number).

6.100 The vocalic desinences (all personal) are the following:

6.110 Type A desinences are (1) {-ú(os)} (2) {-í(es)}, (3) {-a}. (The 3d person desinence has a zero morpheme alternant used with /i/-stems, cf. para. 7.220). The desinences of the 1st and 2d persons sg. are always stressed at the expense of a circumflexed or short stressed vowel in the preceding syllable. Otherwise the stress remains on the stem and the desinences are not

stressed. These desinences are used to form the present tense of all stems except /i:/-stems and /o:/-stems. A sample conjugation is given with stem {kánd} 'to bite' (note that the stem syllable is acuted): (1) /kándu/, (2) /kándi/, (3) /kánda/. In the case of (2) the palatalization of the stem final /nd/ is determined by the following phoneme /i/ (see para. 1.541). The stem {kánd} does not have an inherently palatalized final consonant. On the other hand the stem {grɛ́:b} 'to rake' is inherently palatalized. The conjugation is then (according to para. 4.700) (1) /grɛ́:bu/, (2) /grɛ́:bi/, (3) /grɛ́:be/. An example with a short stem vowel is {riš} 'to tie' the conjugation of which is (1) /ríšú/, (2) /ríší/, (3) /ríša/.

6.120 Type B desinences are (1) {-aũ}, (2) {-aĩ}, (3) {o:}. A morpheme alternant (3) {-è:} is used after palatalized consonants, but not after /j/. (The {-è:} cannot be established as an allomorph of {-o:} because both /è:/ and /o:/ are phonemically possible after palatalized consonants.) As with type A desinences (para. 6.110), the 1st and 2d persons sg. are always stressed at the expense of a circumflexed or short stressed vowel in the preceding syllable. Type B desinences are used to denote the preterit of all consonantal stems and /i:/ stems (see para. 7.370). These desinences are also used to denote the present tense of /o:/-stems and /i:/-stems, (see para. 7.212). (In the present tense of the /i:/-stems the palatalization of the root final consonant is lost, whereas in the preterit it is retained according to para. 7.212 and 7.370. Thus the present and the preterit of /i:/-stems are only distinguished by the absence of palatalization in the present tense and the presence of palatalization in the preterit.) A sample preterit declension is given for {kánd} 'to bite' (a stem ending in an unpalatalized consonant): (1) /kándau/, (2) /kándai/, (3) /kándo:/. The stem {slɛ́:g} 'to oppress' (a stem ending in a palatalized consonant) is conjugated (1) /slɛ́:geu/, (2) /slɛ́:gei/, (3) /slɛ́:gè:/. (Note that in the 1st and 2d sg. the /e/ replaces /a/ according to morphophonemic rule 4.700, but that the /è:/ is the morpheme alternant required in the 3d person after a palatalized stem consonant.) A sample /j/-stem is {ló:j} 'to bark' which is conjugated (1)/ló:jeu/, (2) /ló:jei/, (3) /ló:jo:/. (Note that /e/ replaces /a/ in the 1st and 2d sg., but that /o:/ is retained in the 3d person.) An example of a preterit with a short stressed vowel is furnished by {riš} 'to tie' the preterit declension of which

is (1) /r̂išaû̯/, (2) /r̂išaî̯/, (3) /r̂íšo:/.
6.130 The type C desinence is {-iẽ̂} and the type C' desinence is {-ai}. These desinences function as the second element of a discontinuous morpheme, the initial element of which is {te-} and is prefixed to the stem. These desinences denote the 3d person of the imperative. Type C' is used with /i:/-stems and /o:/-stems and type C with all other stems. The type C desinence is always stressed unless the stem is dissyllabic and ends in {-ij}, {-in}, {-auj}, {-uoj}, {-ė̂:j} or {-o:j}. Examples are the stem {bė̂:g} 'to run' which is represented by the form /t̂ebė̂:giê̯/ 'let him run' and the stem {maitín} 'to feed,' represented by /t̂emaitíñie/ 'let him feed.' It is to be understood that if the desinence is stressed, then the stem can not be stressed (see para. 1.530). An example of the C' desinence is furnished by the stem {sáugo:} 'to watch, to guard' which has the 3d person imperative /t̂esáugai/ 'may he watch over' (see para. 7.213). The type C' desinence is never stressed.
6.200 The consonantal desinences are either personal or non-personal.
6.210 The personal consonantal desinences are given below:
6.220 The type D desinences are (1) {-ŝu(os)}, (2) {-ŝi(es)}, (3) {-s}. These denote the future tense. For example, the stem {lup} 'to pare, to peel' has the future conjugation (1) /lúpŝu/, (2) /lúpŝi/, (3) /lúps/. (See also para. 5.130.)
6.230 The type E desinence is (2) {-ki} (= the base form). (There is also an abbreviated alternant {-k} in free variation with {-ki}.) This desinence denotes the 2d person of the imperative. For example, the stem {muš} 'to beat' has the imperative /mušk̂i/ or /mušk/.
6.240 The type F desinences are (1) {-čeu}, (2) {-tum (eis)}, (3) {-tu:}. The vowel /u:/ of the 3d person desinence is shortened to /u/ before the addition of the dual and plural desinences (see para. 5.130). These desinences are used for the conditional mood. For example, the stem {suk} 'to turn' is conjugated (1) /súkčeu/, (2) /súktum/, (3) /súktu:/. The dual and plural forms are (1st dual) /súktuva/, (2d dual) /súktuta/, (1st pl.) /súktum̂e/, (2d pl.) /súktut̂e/.
6.250 Type B' desinences are morpheme alternants of type B desinences. They are (1) {-jeu}, (2) {-jei}, (3) {-jo:} and denote only the preterit. They are used with all verbal stems ending in a vowel except /i:/ (for which see para. 7.370). These

desinences are never stressed. Thus the stem {bijó:} 'to fear' has the preterit conjugation (1) /bijó:jeu/, (2) /bijó:jei/, (3) /bijó:jo:/.

6.260 To form the imperfect the morpheme {dav} plus type B endings is used. The resultant forms are (1) {-davau}, (2) {-davai}, (3) {-davo:}. For example, the imperfect tense (used only with frequentative meaning) of the stem {muš} 'to beat' is (1) /múždavau/, (2) /múždavai/, (3) /múždavo:/. (For the voicing of the final stem consonant see the morphophonemic rule of para. 4.200.)

6.300 The non-personal consonantal desinence, type G, is {-ti} the infinitive desinence. For example, the infinitive of the stem {suk} 'to turn' is /sûkti/.

7.000 Morphemic changes or stem alternations. When certain types of desinences are added certain stems require morpheme alternants. The changes which take place in the creation of secondary stems, morpheme alternants of primary stems are set forth in the following paragraphs.

7.100 Stress pattern. As we have seen in para. 1.530, in any word in Lithuanian the stress will fall on only one syllable or one mora of one syllable. Shifts of stress from stem to desinence have been discussed in para. 6.110, 6.120 and 6.130.

7.110 When two stresses are marked on a word this means that the stress marked on the first syllable is latent and will appear only when the second syllable is lost according to the rules of stem alternation (see particularly 7.200 ff.). For example, the stem {só:pė:} 'to ache' loses the final vowel when present tense desinences are added (see para. 7.210). With the addition of the present desinence we have the form (3) /só:pa/ 'it aches.' The infinitive, on the other hand, is /so:pé:ti/ (see para. 6.300). Another example is the stem {plaûkí:} 'to float about,' which has an acute on the second syllable. When the 3d person type B desinence is added, the final vowel is lost (and the acute stress with it). The resultant form is /plaûko:/ (see para. 7.212). The infinitive, however, is /plaukí:ti/.

7.111 When the final vowel is dropped (according to para. 7.200 and 7.210), it is possible that the secondary stem will consist of but a single syllable with a short vowel. In this case no stress will be marked on this syllable, because phonemically the only possible situation is stress on the short vowel of the secondary stem. An example is the stem {derė:} 'to conduct

negotiations,' which is discussed in para. 7.210.

7.120 When the 3d future (see 6.220) desinence is added, a directly preceding acuted vowel will be changed to circumflexed. For example, when {-s}, the 3d future desinence, is added to the stem {kalbé:} 'to talk,' the resultant form is /kalbé͡:s/. One must keep in mind para. 7.110 according to which the stress marked on the initial syllable of the stem will not appear unless the second syllable is dropped.

7.121 In stems ending in the phonemic groups /u͡:v/ and /i͡:j/, the circumflex is replaced by the acute when consonantal desinences are added. (An exception is the 3d person future, for which the stem vowel is shortened.) Thus the stem {gi͡:j} 'to be cured' has the infinitive /ĝí:ti/ and is conjugated in the future (1) /ĝí:su/, (2) /ĝí:si/, (3) /ĝís/. Likewise {klu͡:v} 'to hinder' has the infinitive /klú:ti/ and the future conjugation (1) /klú:su/, (2) /klú:si/, (3) /klús/. For the loss of /v/ and /j/ before consonantal desinences see para. 7.310.

7.200 Treatment of stems ending in vowels. When a vocalic desinence is added to a vocalic stem, the stem final vowel is dropped. The exception to this rule is discussed in para. 7.220.

7.210 An example of the loss of the stem final vowel with the addition of present tense desinences is supplied by the present conjugation of the stem {derė́:} 'to conduct negotiations.' When present tense desinences are added a secondary stem {der} is created, or in other words the stem {derė́:} is truncated to {der}. The present tense conjugation (see para. 6.110) is (1) /derú/, (2) /deríʔ/, (3) /de͡:ra/. (For the lengthening of the vowel in the 3d person see para. 7.540). In this case the final /ė:/ palatalizes the preceding /r/ in the primary stem. When the /ė:/ is dropped in the creation of the secondary stem, the palatalization is generally lost also.

7.211 In case the palatalization of the final consonant happens to be retained in the creation of the secondary stem, it will be marked in the morphophonemic transcription (see para. 3.200 and 3.210). For example, the palatalization of the stem final consonant in the primary stem {kveṕé:} 'to smell of' is marked because it is retained in the secondary stem even when the stem final vowel is dropped. The present conjugation of {kveṕé:} is (1) /kveṕú/, (2) /kveṕí/, (3) /kve͡:pe/ with palatalization of the /p/.

7.212 Type B desinences are added to /i:/-stems and /o:/-

stems to denote the present tense, (see para. 6.120). For example, the stem {kaitĭ:} 'to alternate' has the secondary stem {kaĭt} which is used with present tense vocalic desinences: the present conjugation is (1) /kaitaŭ/, (2) /kaitaĭ/, (3) /kaĭto:/. The present conjugation of the stem {tĭ:so:} 'to lie' (an /o:/-stem verb) is (1) /tĭ:sau/, (2) /tĭ:sai/, (3) /tĭ:so:/. For the preterit of /i:/-stems see para. 7.370.

7.213 When type C and C' desinences are added the final vowel of the vocalic stem is dropped. For example, the 3d person imperative of the stem {judĕ:} 'to move' is /ĭejudĭĕ/. (For the shift in stress see para. 6.130).

7.220 When present tense desinences (see para. 6.110) are added to /i/-stems, the final /i/ is retained in the 3d person and the desinence {-a} is not added. A typical /i/-stem verb {túri} 'to have' is conjugated (1) /turú/, (2) /turĭ/, (3) /túri/.

7.230 The final /i/ of /i/-stem verbs is replaced by /ĕ:/ when consonantal desinences are added. For example, the secondary stem of {túri} is {turĕ:}. The infinitive is /turĕ:ti/ (see para. 6.300), the future conjugation is (1) /turĕ:su/, (2) /turĕ:si/, (3) /turĕ:s/ (see para. 6.220 and 7.120) and the preterit conjugation is (1) /turĕ:jeu/, (2) /turĕ:jei/ (3) /turĕ:jo:/ (see para. 6.250).

7.240 The stem {gúi} 'to chase' has the stem alternant {guj} which is used with vocalic desinences. Thus /gúiti/ is the infinitive, but the present conjugation is (1) /gujú/, (2) /gujĭ/, (3) /gúje/.

7.241 The stem {dúi} 'to become dizzy' has the stem alternant {dúj}, used with all vocalic desinences except the present for which the stem alternant is {du:j}. The present conjugation is (1) /du:jú/, (2) /du:jĭ/, (3) /du:je/.

7.300 Treatment of stem final consonantal phonemes.

7.310 Stem final /n,j,v/ are lost before consonantal desinences. For example, the stem {stó:j} 'to stand up' has the infinitive /stó:ti/ (see para. 6.300). Another example is the future conjugation of the verb: (1) /stó:su/, (2) /stó:si/, (3) /sto:s/. (For the circumflex in the 3d person see para. 7.120).

7.320 Monosyllabic stems ending in {-áuj} or {-áun} substitute {-ó:v} before the addition of preterit desinences (see para. 6.120). For example, the secondary stem of {kráuj} 'to load' is {kró:v} and the preterit conjugation is (1) /kró:veu/,

(2) /krǒ:v̂ei/, (3) /krǒ:v̂ė:/.

7.330 Dissyllabic stems ending in {-auj} and {-uoj} substitute {-av} before the addition of preterit desinences. For {bal̃uoj} 'to appear white' the secondary stem is {bal̃tav}, the preterit conjugation of which is (1) /bal̃tavau/, (2) /bal̃tavai/, (3) /bal̃tavo:/.

7.331 Dissyllabic stems ending in {-áuj} and {-úoj} substitute {-ár̃} before the addition of preterit desinences. The preterit conjugation of {badáuj} 'to starve' (with the secondary stem {badár̃}) is (1) /badavaũ/, (2) /badavaĩ/, (3) /bada:v̂o:/. (For the lengthening of the vowel in the 3d person see para. 7.540.)

7.332 The stem {aũn} 'to put on shoes' has the secondary stem {áv̂} for the preterit conjugation, which is (1) /av̂eũ/, (2) /av̂eĩ/, (3) /a:v̂ė:/.

7.333 The stem {gaũn} 'go get' has the secondary stem {gav} for the preterit, which is conjugated (1) /gavaũ/, (2) /gavaĩ/, (3) /ga:v̂o/.

7.334 The two verbal stems {šlúoj} 'to sweep' and {dúod} 'to give' have the preterit stems {šlav̂} and {dav̂} respectively.

7.335 Dissyllabic stems ending in {-o:j} drop the final syllable before the addition of present and type C imperative desinences. For example, the stem {ráudó:j} 'to sob' has the present conjugation (1) /ráudu/, (2) /ráudì/, (3) /ráuda/, but the preterit conjugation is (1) /raudó:jeu/, (2) raudó:jei/, (3) /raudó:jo:/.

7:340 In a primary stem, final unpalatalized /st/ is dropped for the creation of a secondary stem which is used with type AC desinences. For example, a stem {klí:dst} 'to err' (phonemically /klí:st/, cf. para. 4.330 and 1.100) has the present conjugation (1) /klí:stu/, (2) /klí:s̃ti/, (3) /klí:sta/, but the preterit is (1) /klí:dau/, (2) /klí:dai/, (3) /klí:do:/. Another example is furnished by the stem {sénst} 'to grow old,' which has the present conjugation (1) /s̃énstu/, (2) /s̃énsti/, (3) /s̃énsta/, but the preterit conjugation (1) /s̃enaũ/, (2) /s̃enaĩ/, (3) /s̃e:no:/ (see para. 7.540).

7.341 The stem {pažíst} 'to be acquainted with, to know' has the secondary stem {pažin} for use with all but type AC desinences. The present conjugation is (1) /paží:stu/, (2) /paží:s̃ti/, (3) /paží:sta/, but the preterit is (1) /pažinaũ/, (2) /pažinaĩ/, (3) /pažíno:/.

7.342 The stem {mírš̃t} 'to die' has a secondary stem {miĩ}

for use with all but type AC desinences. Thus the present conjugation is (1) /mi͡ŕeũ̯/, (2) /mi͡ŕeĩ̯/, (3) /mi͡ŕé:/.

7.350 Stem final /d/ and /t/ are replaced by /d͡/ and /č/ respectively before the 1st sg. preterit desinence. For example, the stem {li͡et} 'to touch' is conjugated (1) /li͡ečú/, (2) /li͡eti͡/, (3) /li͡ečе/ in the present; the preterit conjugation is (1) /li͡ečeũ̯/, (2) /li͡eteĩ̯/, (3) /li͡eté:/.

7.351 The stem {léid} 'to let' sometimes loses its palatalization when preterit desinences are added. For example, the present conjugation is (1) /léidu/, (2) /léidi/, (3) /léide/. The preterit conjugation may be either (1) /léidau/, (2) /léidai/, (3) /léido:/ or (1) /léideu/, (2) /léidei/, (3) /léidé:/. The same variation is possible with the stem {grind} ' to pave.'

7.360 When the imperative desinences (type E) are added, a stem final /t/ or /d/ is replaced by /s/. For example, the stem {ved} 'to lead' has the imperative /vésk/ or /vésk/ (see para. 6.230).

7.370 In all of the other paragraphs of section 7, I have shown which morpheme alternant (i.e. secondary stem) is required when certain desinences are added. I have assumed that the desinence was the determining feature and that the stem was determined by the desinence. In this paragraph I am reversing the procedure. Since type B desinential morphemes can denote either the present or the preterit depending upon which type of stem is used, I must predict the tense from the stem for /i:/-stems. In these verbs the final stem consonant is unpalatalized for the present tense, but palatalized for the preterit. For example the stem {tráuki:} 'to drag about' has the present conjugation (1) /tráukau/, (2) /tráukai/, (3) /tráuko:/, but the preterit conjugation (1) /tráukeu/, (2) /tráukei/, (3) /tráuké:/. Likewise {kaiti:} 'to alternate' has the present conjugation (1) /kaitaũ̯/, (2) /kaitaĩ̯/, (3) /kaito:/, but the preterit conjugation (1) /kaiceũ̯/, (2) /kaiteĩ̯/, (3) /kaité:/. (For the /č/ in the 1st sg. see para. 7.350.)

7.380 The palatalization of the final stem consonant is lost if the stem falls into the following pattern: the first phoneme is a consonant, the second is a short vowel (i.e. /i/, /u/, /e/, /a/) or the diphthong /uo/ and the stem final is either a palatalized single consonant or the group {zg}. For example, the stem {sek} 'to follow' has the present conjugation (1) /sekú/, (2) /seki/, (3) /se:ka/, but the preterit is (1) /sekeũ̯/,

(2) /ŝekeĭ/, (3) /ŝe:kė:/. Another example is the stem {mezĝ} 'to knot' the present conjugation of which is (1) /mezgú/, (2) /mezĝí/, (3) /me:zga/ but the preterit conjugation of which is (1) /mezĝeŭ/, (2) /mezĝeĭ/, (3) /me:zgė:/.

7.381 The stem {é:d} 'to eat' (of animals) also loses the palatalization with present desinences. The present conjugation is (1) /é:du/, (2) /é:di/, (3) /é:do/, but the preterit conjugation is (1) /é:deu/, (2) /é:dei/, (3) /é:dė:/.

7.390 The final /d/ of the stem {duod} 'to give' is dropped before the addition of consonantal desinences, e.g. the infinitive is /dúoti/ and the future conjugation is (1) /dúosu/, (2) /dúosi/, (3) /duos/, but the present conjugation is (1) /dúodu/, (2) /dúodi/, (3) /dúoda/. For the preterit see para. 7.334.

7.391 The stem {dé:j} 'to put' has the secondary stem {ded} for use with the present desinences. The present conjugation is (1) /dedú/, (2) /dedí/, (3) /de:da/, but the preterit conjugation is (1) /dé:jeu/, (2) /dé:jei/, (3) /dé:jo:/. According to para. 7.310 the stem final /j/ is lost before consonantal desinences, e.g. the infinitive is /dé:ti/.

7.392 The stem {eĭn} 'to go' has the secondary stem {ė:j} for the preterit conjugation which is (1) /ė:jeŭ/, (2) /ė:jeĭ/, (3) /ė:jo:/.

7.394 The stem {viŝ} 'to cook' has the stem alternant {vérd} which is used with present desinences. The present conjugation is (1) /vérdu/, (2) /vérdi/, (3) /vérda/, but the preterit conjugation is (1) /viŝeŭ/, (2) /viŝeĭ/, (3) /viŝė:/.

7.400 Qualitative ablaut procedures. Monosyllabic primary stems with the root vowel /e/ replace the /e/ with /i/ before all the desinences except type AC if the final phoneme or phoneme sequences are of the types listed in para. 7.410 through 7.442.

7.410 The last phoneme is a palatalized nasal consonant. The stem {meñ} 'to have in mind' falls into this category. The present conjugation (with stem final depalatalization according to para. 7.380) is (1) /menú/, (2) /meñi/, (3) /me:na/. The preterit conjugation is (1) /miñeŭ/, (2) /miñeĭ/, (3) /miñė:/. Other stems belonging to this category include {gem} 'to be born' and {geñ} 'to chase.'

7.420 The last two phonemes are a liquid plus any unpalatalized consonant. For example, the stem {kerp} 'to shear, to clip' has the present conjugation (1) /kerpú/, (2) /kerpí/, (3) /kerpa/ but the preterit conjugation is (1) /kirpaŭ/, (2) /kirpaĭ/,

(3) /kiřpo:/.

7.430 The consonant preceding the root vowel /e/ is a liquid and the last two stem consonants are a nasal plus any unpalatalized non-labial stop consonant. An example is the stem {reřk} 'to gather, to collect' which has the present conjugation (1) /řenkú/, (2) /řenkí/, (3) /řeřka/ and the preterit conjugation (1) /řinkaŭ/, (2) řinkaĭ/, (3) /řiřko:/. Another example is the stem {lend} 'to crawl' which has the present conjugation (1) /lendú/, (2) /lendí/, (3) /leřda/, but the preterit conjugation (1) /lindaŭ/, (2) /lindaĭ/, (3) /liřdo:/.

7.431 The stem {kems} 'to stuff' also fits in this category, the present conjugation of which is (1) /kemšú/, (2) /kemší/, (3) /kemša/, but the preterit conjugation is (1) /kimšaŭ/, (2) /kimšaĭ/, (3) /kimšo:/.

7.432 The stems {kreřk} 'to thicken' (as of blood) and {kleřk} 'to fall together' do not follow the rules of 7.430.

7.440 The stem {im} 'to take' has the secondary stem {ė:m}, for the preterit. The present conjugation is (1) /imú/, (2) /imí/, (3) /ima/ and the preterit conjugation (1) ė:meŭ/, (2) /ė:meĭ/, (3) /ė:mė:/.

7.450 The stem {liřk} 'to remain' has the secondary stem {lik} for use with all but type AC desinences. The present conjugation is (1) /liřkú/, (2) /liřkí/, (3) /liřka/, but the preterit conjugation is (1) /likaŭ/, (2) /likaĭ/, (3) /liřko: /.

7.460 The stem {vej} 'to chase' has the secondary stem {vij} for use with all but type AC desinences. The present conjugation is (1) /vejú/, (2) /vejí/, (3) /veřje/, and the preterit conjugation is (1) /vijeŭ/, (2) /vijeĭ/, (3) /vijo:/.

7.470 The stems {kořr} 'to hang' and {vořg} 'to steal' substitute /a/ for /o:/ before type AC desinences. The stem {vořg} has the present conjugation (1) /vaĝú/, (2) /vaĝí/, (3) /vařge/, but the preterit conjugation (1) /vo:ĝeŭ/, (2) /vo:ĝeĭ/, (3) /vo:ĝė:/.

7.500 Quantitative ablaut procedures. If stems fall into either of the categories of para. 7.510 or 7.520, then the stem vowels /i:/ or /u:/ will be shortened to /i/ or /u/ respectively before the addition of the preterit desinences. The stem vowels /e:/ and /a:/ will also be shortened to /e/ and /a/ respectively with the addition of the 1st and 2d sg. preterit desinences, but not the 3d person (see para. 7.540).

7.510 The following (and final) stem consonant is unpalatalized

/r,l,m,n/. For example, the stem {skí:l} 'to split' has the present conjugation (1) /skí:lú/, (2) /skí:lí/, (3) /skí:la/, but the preterit conjugation is (1) /skílaŭ/, (2) /skílaĭ/, (3) /skílo:/. (The stem will also be shortened before consonantal desinences, cf. para. 4.610). The future conjugation of this stem is (1) /skílsu/, (2) /skílsi/, (3) /skíls/. (For the stress pattern of the 3d person see para. 7.120.) A second example is the stem {sa:l} 'to become sweet' which has the present conjugation (1) /sa:lú/, (2) /sa:lí/, (3) /sa:la/, but the preterit (1) /salaŭ/, (2) /salaĭ/, (3) /sa:lo:/.

7.520 The stem vowels are /i:/, /u:/, /e:/, /a:/ (i.e. circumflexed) and occur directly before the unpalatalized stem phonemes /s,z,š or ž/. For example, the stem {drí:sk} 'to tear, to rip' has the present conjugation (1) /dri:skú/, (2) /dri:skí/, (3) /dri:ska/, and the preterit conjugation (1) /driskaŭ/, (2) /driskaĭ/, (3) /drísko:/.

7.530 With verbal stems of the type examined in para. 7.520 the shortened vowel is also used with consonantal desinences. For example, the infinitive of {drí:sk} is /driksti/ and the future conjugation is (1) /driksu/, (2) /driksi/, (3) /driks/. (For the metathesis of /sk/ see para. 4.400.)

7.531 The verbal stems {ti:sst} 'to stretch,' {dri:sst} 'to dare,' {gri:zst} 'to return' and {dri:zst} 'to tear, to wear off,' are not shortened according to para. 7.520 and 7.530.

7.540 The vowels /e/ and /a/ in the final syllable of a stem (either primary or secondary) are always lengthened to /e:/ and /a:/ respectively when the 3d person present or preterit desinences are added. For example, the stem {met} 'to throw' has the present conjugation (1) /metú/, (2) /metí/, (3) /me:ta/ and the preterit conjugation (1) /meteŭ/, (2) /meteĭ/, (3) /me:té:/. (For the loss of stem final palatalization see para. 7.380.) An example of a secondary stem with such lengthening is found in para. 7.340.

7.550 With present desinences monosyllabic stems which have the vowels /i:, u:, é:/ or /o:/ substitute respectively the vowels /i,u,e/or/a/ if the final stem consonant is palatalized /l,m,n,r/. For example, the stem {lé:m} 'to predict' has the present conjugation (1) /lemú/, (2) /lemí/, (3) /le:me/. The preterit conjugation is (1) /lé:meu/, (2) /lé:mei/, (3) /lé:mé:/.

7.551 The same vocalic substitutions are required before the addition of consonantal desinences (morphophonemically in the

case of /i:, u:/, cf. para. 4.600). The future tense of the stem {lẽ:m} is (1) /l̂ém̂su/, (2) /l̂ém̂si/, (3) /l̂em̃s/, (see para. 6.220 and 7.120).

7.552 When the final phoneme of the stem of the type examined in 7.550 is /n̂/, then the palatalization is lost when the present desinences are added. For example, the stem {trí:n̂} 'to rub' has the present conjugation (1) /t̂rîn̂ú/, (2) /t̂rîn̂í/, (3) /t̂rîna/ but the preterit conjugation (1) /t̂rî:ñeu/, (2) /t̂rî:ñei/, (3) /t̂rî:ñè:/.

7.553 The alternation of 7.552 is also observed for the stem {pí:l̂} 'to pour,' which is conjugated (1) /p̂ilú/, (2) /p̂il̂í/, (3) /p̂íla/ in the present and (1) /p̂í:l̂eu/, (2) /p̂í:l̂ei/, (3) /p̂í:l̂è:/ in the preterit.

7.560 In monosyllabic primary stems the vowel /ẽ:/ (circumflexed) followed by one or two (but not more) palatalized consonantal phonemes will be lost and /e/ substituted when type AC desinences are added. For example, the stem {dv̂ẽ:s̃} 'to perish' (of animals) has the present conjugation (1) /dv̂es̃ú/, (2) /dv̂es̃í/, (3) /dv̂e:s̃e/, but the preterit conjugation (1) /dv̂é:s̃eũ/, (2) /dv̂é:s̃eĩ/, (3) /dv̂é:s̃è:/.

7.561 The stem {trẽ:kš̃} 'to press out,' although with an acuted stem vowel, follows the rule of 7.560.

7.562 The two stems {rẽ:k̃} 'to cry, to shout' and {krẽ:k̃} 'to couple' (of hogs) do not have a stem vowel alternation, contrary to 7.560.

7.563 The stems {pũ:t̃} 'to blow' and {tũ:p̃} 'to alight' shorten the stem vowel to /u/ before type AC desinences. For example, the present conjugation of {tũ:p̃} is (1) /tup̃ú/, (2) /tup̃í/, (3) /túp̃e/, but the preterit conjugation is (1) /tu:p̃eũ/, (2) /tu:p̃eĩ/, (3) /tũ:p̃é:/.

7.570 Stems ending in the consonants /v/ and /j/ shorten a long preceding homorganic vowel when preterit desinences are added, and for the 3d person future desinences. For example, the stem {gĩ:j} 'to be cured' has the preterit conjugation (1) /g̃ijeũ/, (2) /g̃ijeĩ/, (3) /g̃íjo:/. The preterit conjugation of {k̃lũ:v} 'to hinder' is (1) /k̃luvaũ/, (2) /k̃luvaĩ/, (3) /k̃lũvo:/. For the 3d person future desinence see para. 7.120.

7.580 Stems ending in the consonants /v/ and /j/ lengthen a short preceding homorganic vowel before the addition of all consonantal desinences. (The vowel is also acuted before all desinences except the 3d person future, for which see

para. 7.120.) For example, the stem {ŝuv} 'to sew' has the infinitive /ŝú:ti/ and the future conjugation is (1) /ŝú:ŝu/, (2) /ŝú:ŝi/, (3) /ŝu:s/. The stem {dalij} 'to divide' has the infinitive /dalí:ti/ and the future conjugation (1) /dalí:ŝu/, (2) /dalí:ŝi/, (3) /dalí:s/. For the loss of /v/ and /j/ before consonantal desinences see para. 7.310.

7.600 Nasal infix: Monosyllabic stems the last two phonemes of which are /n/ plus an unpalatalized stop consonant or /m/ plus an unpalatalized labial stop lose the nasal phoneme before all but type AC desinences. For example, the stem {junt} 'to feel' has the present conjugation (1) /juntú/, (2) /juntí/, (3) /junta/ and the form /tejuntie/ with the type C ending. The preterit, on the other hand, is (1) /jutaũ/, (2) /jutaĩ/, (3) /júto:/ and the infinitive /jústi/. The stem {stimp} 'to perish' (of animals) has the present conjugation (1) /stimpú/, (2) /stimpí/, (3) /stimpa/, and the preterit conjugation (1) /stipaũ/, (2) /stipaĩ/, (3) /stípo:/.

7.610 Except for the stems {brend} 'to wade' and {skrend} 'to fly' the stems which follow the rules of para. 7.430 do not lose the /n/ according to para. 7.600. The stems {brend} and {skrend}, however, are subject both to the stem alternations of 7.430 and 7.610. The present conjugation of {brend} is (1) /brendú/, (2) /brendí/, (3) /brenda/, but the preterit conjugation is (1) /bridaũ/, (2) /bridaĩ/, (3) /brído:/.

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2. cf. A. Leskien, Litauisches Lesebuch (Heidelberg, 1919) and Chr. Stang, Das slavische und baltische Verbum (Oslo, 1942).
3. "Russian Conjugation," Word 4:155-167.
4. Handbuch der altbulgarischen Sprache (Weimar, 1910).
5. Halle, Word 7:155-167; Rubenstein, Word 7:144-154; Kučera, Word 8:378-386.
6. Lunt, Makedonski Jezik 2:123-131; Schenker, Word 10:469-481.
7. Jakobson, op. cit., p. 159.
8. These phonemes are not found in the speech of many Lithuanians.